

VPDES PERMIT FACT SHEET

This document gives pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a minor industrial permit. The effluent limitations contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260. The discharge results from the operation of a cold water aquatic animal production facility (trout hatchery). The permit process consists of: limiting pH, total suspended solids, settleable solids and temperature. The permit also contains monitoring requirements for flow, biochemical oxygen demand and ammonia.

1. Facility Name and Address:

SIC Code: 0921

Marion Fish Cultural Station
1910 Hatchery Drive
Marion, VA 24354

Location: Rt. 16, approximately 1.3 miles south of Marion, VA

2. Facility Contact:

Name: Aaron VanArnum (aaron.vanarnum@dgif.virginia.gov)
Title: Hatchery Superintendent
Telephone: (276) 782-9314

3. Permit Number: VA0054381

Expiration Date: February 24, 2013


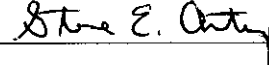
4. Owner Name and Address:

Virginia Department of Game and Inland Fisheries
4010 West Broad Street
P.O. Box 11104
Richmond, VA 23230
Telephone: (804) 367-1004

5. Application Processing:

Application Complete Date: July 19, 2012
DEQ Regional Office: Southwest Regional Office
Permit Drafted By: Mark S. Trent

Reviewed By:

Date: December 5, 2012

Date: 12/5/2012

6. Receiving Stream:

Stream Name: Staley Creek
Basin: Tennessee-Big Sandy River
Subbasin: Holston River
Section: 5
Class: VI
Special Standards: None
River Mile: 6CSTA002.6

7. Operator License Requirements:

No licensed operator will be required for the wastewater treatment system.

8. Reliability Class: N/A

9. Permit Characterization:

- | | |
|---|---|
| <input type="checkbox"/> Private | <input type="checkbox"/> Federal |
| <input checked="" type="checkbox"/> State | <input type="checkbox"/> Other |
| <input type="checkbox"/> POTW | <input type="checkbox"/> Possible Interstate Effect |
| <input type="checkbox"/> Interim Limits in Other Document | |

10. Discharge Location:

The facility is located off Rt. 16 approximately 1.3 miles south of Marion. A location map is included as **Attachment A**.

Name of Topo: Atkins, VA 7.5' Quadrangle

Latitude: 36° 49' 25"N Longitude: 81° 28' 51"

11. Facility Description:

The Marion Fish Cultural Station is a state owned trout production facility with an annual capacity of approximately 170,000 pounds of brook, brown, and rainbow trout. The facility utilizes 54 small raceways and ponds and 9 large ponds to hatch and rear the fish. The fish are then used to stock trout streams throughout the region.

Water for the hatchery is supplied by a number of springs in the watershed. The discharge from the hatchery is permitted as outfall 001.

Discharge Description

OUTFALL NUMBER	DISCHARGE SOURCE	TREATMENT	FLOW
001	Aquatic Animal Production Facility (cold water)	Sedimentation	2.5 MGD

A schematic diagram of the water flow through the facility is included as **Attachment B**.

12. Ambient Water Quality Information:

The facility discharges to Staley Creek, a tributary of the Middle Fork Holston River. The critical flow frequencies for the receiving stream at the discharge point are estimated from the recorded values at a downstream gage site. The values at the discharge point were determined by drainage area proportions. The resulting critical flow estimates for Staley Creek at the discharge point are as follows:

7-Day, 10-Year Low Flow:	2.10 MGD
1-Day, 10-Year Low Flow:	2.17 MGD
30-Day, 5-Year Low Flow:	2.33 MGD
Harmonic Mean Flow:	4.59 MGD

13. Wastewater Treatment:

Treatment of the wastewater is provided by three settling ponds below the raceways. The settling basins create a two stage sedimentation system whereby the hatchery flow is split into two portions, and each portion flows to a separate pond. The discharge from these ponds flow to a finishing pond which discharges to Staley Creek as outfall 001.

14. Residuals Management or Disposal:

During a previous permit term, the facility submitted a solids handling and disposal plan. Under the existing approved plan the facility disposes of all material removed from the basins on adjacent property which is owned by VDGIF. Water is diverted around each basin, and the settled material is removed using an excavator. The material is transported to the disposal site and placed on pastureland owned by the VDGIF.

15. Material Storage:

No food, waste products or treatment chemicals are stored onsite in a manner which have a potential to contaminate state waters. Therefore, no material storage provisions are required in the permit.

16. Anti-degradation Review:

Tier: 1 _____ 2 X 3 _____

The State Water Control Board's Water Quality Standards includes an anti-degradation policy (9 VAC 25-260-30). All state surface waters are provided one of three levels of anti-degradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The anti-degradation policy prohibits new or expanded discharges into exceptional waters.

The anti-degradation review begins with a Tier determination. Staley Creek is determined to be a Tier 2 waterbody. This determination is based on the fact the Staley Creek is a high quality stream, and there are no known violations of the numeric water quality standards within the segment. Therefore, the segment is classified as "Tier 2" waters, and the permit is written to ensure that the high quality of the stream be protected.

Since the facility is currently meeting the required effluent limitations and the monitoring conducted for the re-issuance application has identified no pollutants which have the potential to contravene the water quality standards of the receiving stream, the permit action is considered to comply with the anti-degradation requirements of the regulations.

17. Site Inspection:

Date: October 10, 2012

Performed by: Wade B. Carico

A technical and laboratory inspection was conducted by SWRO staff on October 12, 2102 and no deficiencies were noted.

18. Effluent Screening & Limitation Development:

Part I.A of the existing permit contains monitoring requirements for pH, total suspended solids, settleable solids, ammonia-nitrogen, biochemical oxygen demand and temperature. The results of the monitoring in the Part I.A requirements indicates that the levels of potential pollutants discharged from the facility do not contravene the water quality standards of the receiving stream, and do not require that additional effluent limitations be imposed upon the discharge.

A review of the monitoring data for ammonia nitrogen indicates that the concentration in the discharge ranges from 0.12 to 0.58 mg/l. An evaluation of the monitoring data indicates that an effluent limitation is not necessary to protect the water quality standards of the receiving stream.

Similarly, the results for the BOD5 monitoring indicate that the level of biochemical oxygen demand has been reported to be in the range of less than the quantification level to a reported maximum of 4.4 mg/l. Given the high degree of aeration required for maintenance of a trout population and the low concentrations of oxygen demanding pollutants as evidenced by the low BOD5 analyses, the potential impact to the DO of the receiving stream is negligible.

The effluent limitations proposed for this facility are presented below and are based on the Department's standard effluent limits developed for raceway type cold water aquatic animal production facilities.

- a. **pH** - The pH limits contained in the permit are identical to those in the existing permit, and are based upon the water quality standards for the receiving stream.
- b. **BOD₅** - The permit includes a monitoring requirement for biochemical oxygen demand (BOD), which was initially established based upon the Department's standard effluent limits for raceway type aquaculture operations. Given these consistently low concentrations, the permit proposes no effluent limits for BOD. The draft permit proposes to continue this monitoring at a reduced frequency of once per six months.
- c. **NH₃** - The existing permit contains a monitoring requirement for ammonia. An analysis of these results of the monitoring indicates that a limit for ammonia is not necessary to protect the water quality standards of the receiving stream. The draft permit proposes to continue monitoring of ammonia at the current frequency of once per six months.
- d. **TSS** - The total suspended solids limits are unchanged from the existing permit. The frequency of monitoring is continued at the reduced frequency of once per quarter based upon the past record of compliance.
- e. **SS** - The settleable solids limits and monitoring frequency are unchanged from the existing permit. The frequency of monitoring is continued at the reduced frequency of once per quarter based upon the past record of compliance.

f. **Temp** - The temperature limits are unchanged from the existing permit.

A summary of the proposed limits are presented below:

() Interim Limitations

Effective Dates:

From: 2/25/13

(X) Final Limitations

To: 2/24/18

Parameter	Basis for Limit	Discharge Limitations				Monitoring Requirement	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (mgd)	NA	NL	NA	NA	NL	1/ 3 Months	Estimate
PH (Std Units)	3	NA	NA	6.0	9.0	1/3 Months	Grab
BOD5	3	NA	NA	NA	NL	1/ 6 Months	Grab
Total Suspended Solids	2	10 mg/l	NA	NA	15 mg/l	1/ 3 Months	5G/8HC
Temperature	3	NA	NA	NA	20° C	1/ 3 Months	Immersion Stabilization
Ammonia	3	NA	NA	NA	NL	1/6 Months	Grab
Settleable Solids	2	0.1 ml/l	NA	NA	0.5 ml/l	1/3 Months	5G/8HC

NA = Not Applicable

NL = No Limitations

The basis for the limitations codes are:

1. Federal Effluent Requirements
2. Best Engineering Judgment
3. Water Quality Standards
4. Other (model, WQM Plan, etc.)
5. Best Professional Judgment

19. **Anti-backsliding:**

Because the effluent limitations in the proposed draft are identical to those in the current permit, this permit action conforms to the anti-backsliding provisions of the regulations.

20. **Monitoring Frequency Reduction:**

During a previous permit action, the monitoring frequencies were reduced to their current status because the operation had consistently demonstrated compliance with the permit limitations and conditions. The facility has continued to exhibit exemplary compliance with the limited pollutants and continues to qualify for a monitoring frequency reduction in accordance with agency guidelines.

21. Threatened and Endangered Species Consultation:

Staley Creek is a tributary of the Middle Fork Holston River which has confirmed presence of a number of threatened and endangered aquatic species. Therefore, a notice of the application and a description of the proposed permit action were forwarded to the habitat division of the Virginia Department of Game and Inland Fisheries in accordance with the 2007 memorandum of agreement regarding T&E species. No comments were received.

22. Compliance Schedules:

There are no compliance schedules or other enforcement actions in effect for this facility.

23. 303(d) Listed Segments and TMDL Development:

Staley Creek (O03R-03-BAC) is listed on the current 303(d) impaired waters list because of failure to achieve the water quality standards for *Escherichia coli*. A water quality monitoring station at 6CSTA000.05 has a 67% exceedance of the *E. coli* water quality standard. The source of the impairment is listed as rural residential development. This segment was first listed in 2010, and is scheduled for TMDL development in 2022.

Because *E. coli* is a bacterium that is found in the intestine of warm blooded animals, it is used as an indicator for potential fecal contamination of waters. The most common source of contamination in rural areas is from livestock and/or failing or insufficient residential on-site sewage disposal practices. However, *E. coli* is not expected to be a component of the discharge from the hatchery. The limits and special conditions in this permit have been designed to provide that this facility will neither cause nor contribute to the impairment. Therefore, no additional monitoring of the discharge is proposed. However, the permit has been modified to include a TMDL re-opener should future TMDL actions mandate additional effluent limitations or other controls.

24. Special Conditions:

- a. **Chemical Additives:** The permit contains a special condition which prohibits the addition of chemical additives to the water or wastewater without prior approval of the Department (Part I.B.1).

Rationale: The special condition is adapted from the standard language contained in the guidance for aquatic animal production facilities and is intended to address the potential water quality impacts from the use of various chemicals and drugs commonly used in the production of fish.

- b. **Discharge of Solids:** The permit contains a special condition which prohibits the discharge of organic solids which would cause the degradation of state waters (Part I.B.2).

Rationale: This special condition is adopted from the standard language contained in a previous general VPDES permit for aquatic animal production facilities.

- c. **Residuals Disposal:** A special condition is included in the permit which requires the operator to implement and maintain a solids management and disposal plan. (Part I.B.3).

Rationale: The recommended special conditions for aquatic animal production facilities require a solids handling and disposal plan for any solids removed from the facility. The special condition is adapted

from the standard language contained in the general VPDES permit for aquatic animal production facilities.

- d. **Additional Monitoring and Reporting Requirements:** The permit includes special conditions which specify additional monitoring and reporting requirements for Total Suspended Solids (Part I.B.4).

Rationale: Authorized by VPDES Permit Regulation, 9 VAC 25-31-190 J 4 and 220 I. This condition is necessary when toxic and conventional pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.

- e. **Resumption of Monthly Monitoring:** The permit includes a special condition which requires the facility to resume monthly monitoring should the facility be issued a Warning Letter, a Notice of Violation, or be the subject of an active enforcement action (Part I.B.5).

Rationale: The reduction of monitoring is based upon past performance, and the facility is expected to maintain the performance levels that were used as the basis for granting monitoring reductions.

- f. **TMDL Reopener:** The permit includes a special condition which will allow the permit to be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.

Rationale: The stream segment which receives the discharge from this facility has been recently identified as not meeting the bacterial water quality standard for E. coli. Although not a component of this discharge, this condition is necessary should a future TMDL action impose wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.

25. NPDES Permit Rating Work Sheet:

The staff has completed the NPDES Permit Rating Worksheet and has determined that the facility does not meet the criteria to be classified as a major source. The completed worksheet is on file at the regional office.
Total Score: 25

26. Changes to the Permit:

No changes to the Part I.A effluent limitation and monitoring requirements are proposed from the current permit requirements. Part I.B.4 and Part II.A has been modified to reflect current requirements.

27. Variances/Alternate Limits or Conditions:

During previous permit terms, the Department had issued a waiver from monitoring of certain Part A pollutants listed on Part V of the Form 2C application. This waiver is being extended to the current application.

Because no toxic management program is required, the facility will be exempt from the chemical data collection requirements of the special condition for monitoring usually applied to facilities upon reissuance.

No certified operator is required for the wastewater treatment system, since sedimentation is the only wastewater treatment proposed.

28. Public Notice:

In accordance with 9 VAC 25-31-290, a public notice will be published once per week for two consecutive weeks in a newspaper of general circulation in the area affected by the discharge. A copy of the public notice and all pertinent information is on file and may be inspected or copied by contacting Mark Trent at:

Department of Environmental Quality
Southwest Regional Office
355-A Deadmore Street
Abingdon, VA 24212-1688
Phone: (276) 676-4800
E-mail address: mark.trent@deq.virginia.gov

Persons may comment in writing, or by electronic mail to the DEQ on the proposed reissuance of the permit, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action.

Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

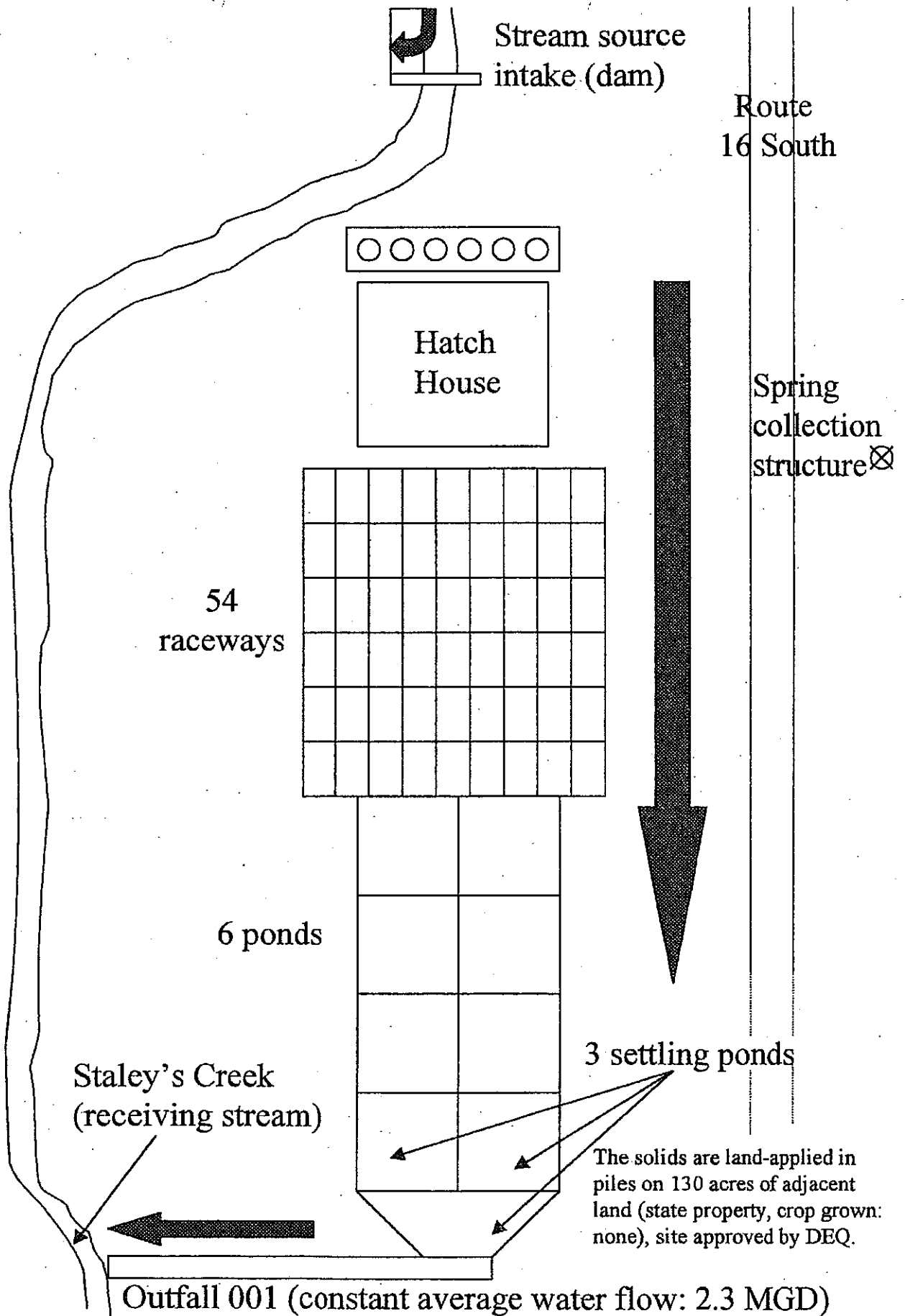
Public Notice Beginning date: _____

Public Notice End date: _____

Attachment A



Attachment B



Part I. Virginia Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: MARION Fish Cultural Station

NPDES Permit Number: VA0054381

Permit Writer Name: Trent

Date: 12-5-12

Major ☐ Minor ☒ Industrial ☒ Municipal ☐ TMDL Related ☐

A. Draft Permit Package Submittal Includes:	Yes	No	N/A
1. Permit Application?	✓		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	✓		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	✓		
5. Priority Pollutant Screening to determine parameters of concern?			✓
6. Reasonable Potential analysis showing calculated WQBELs?			✓
7. Dissolved Oxygen calculations?			✓
8. Whole Effluent Toxicity Test summary and analysis?			✓
9. Permit Rating Sheet for new or modified industrial facilities?			✓

B. Permit/Facility Characteristics	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		✓	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	✓	1	

B. Permit/Facility Characteristics -- cont		Yes	No	N/A
3. Does the record or permit contain a description of the wastewater treatment process?	✓			
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?			✓	
5. Has there been any change in streamflow characteristics since the last permit was developed?			✓	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?			✓	
7. Does the record or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	✓			
8. Does the facility discharge to an impaired water (i.e., 303(d) listed water)?			✓	
9. Has a TMDL been developed and approved by EPA for the impaired water?				✓
10. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?				✓
11. Does the facility discharge a pollutant of concern identified in the TMDL?				✓
12. Have any limits been removed, or are any limits less stringent, than those in the current permit?			✓	
13. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?				✓
14. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?				✓
15. Does the permit authorize discharges of storm water?				✓
16. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?			✓	
17. Are there any production-based, technology-based effluent limits in the permit?			✓	
18. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?				✓
19. Are any WQBELs based on an interpretation of narrative criteria?				✓
20. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?			✓	

B. Permit/Facility Characteristics -- cont	Yes	No	N/A
21. Does the permit contain a compliance schedule for any limit or condition?		✓	
22. Does the permit include appropriate Pretreatment Program requirements?			✓
23. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		✓	
24. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?			✓
25. Is there any indication that there is significant public interest in the permit action proposed for this facility?		✓	
26. Has previous permit, application, and fact sheet been examined?	✓		

Part IIa. NPDES Draft Permit Checklist
Region III NPDES Permit Quality Checklist – for POTWs

A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the record or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?			
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?			

B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the record describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?			
2. Does the record discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			

C. Technology-Based Effluent Limits (POTWs)	Yes	No	N/A
1. Does the permit contain numeric limits for <u>ALL</u> of the following: TSS, pH and BOD (or alternative, e.g., CBOD, COD, TOC)?			
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?			
2.a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?			
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly, daily maximum) limits?			
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?			
5.a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			

D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering state narrative and numeric criteria for water quality?			
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			

D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
3. Does the record provide effluent characteristics for each outfall?			
4. Does the record document that a “reasonable potential” evaluation was performed?			
4.a. If yes, does the record indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?			
5. Does the record describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			
6. Does the record present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?			
7. Does the record indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			
8. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?			
9. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the record?			
10. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., weekly average, maximum daily, or instantaneous) effluent limits established?			
11. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?			
12. Does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?			

E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?			
1.a. If no, does the record indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate his waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?			

E. Monitoring and Reporting Requirements cont'd	Yes	No	N/A
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?			
4. Does the permit require testing for Whole Effluent Toxicity (if applicable)?			

F. Special Conditions	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?			
2. Does the permit include appropriate storm water program requirements?			
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			
5. For CSO facilities, does the permit require implementation of the "Nine Minimum Controls"?			
6. For CSO facilities, does the permit require development and implementation of a "Long Term Control Plan"?			
7. For CSO facilities, does the permit require monitoring and reporting for CSO events?			

G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?			
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
Not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?			

Part IIb. NPDES Draft Permit Checklist
Region III NPDES Permit Quality Review Checklist For Non-POTWs

A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the record or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	✓		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	✓		

B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the record describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	✓		
2. Does the record discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	✓		

C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		✓	
1.a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			
1.b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?			✓
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	✓		
3. Does the record adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	✓		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production: for the facility (not design)?			✓
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		✓	
5.a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	✓		

C. Technology-Based Effluent Limits (Effluent Guidelines & BPL) -- cont	Yes	No	N/A
7. Are all technology-based limits expressed in terms of both maximum daily and monthly average limits?	✓		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPL?		✓	

D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	✓		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			✓
3. Does the record provide effluent characteristics for each outfall?	✓		
4. Does the record document that a "reasonable potential" evaluation was performed?	✓		
4.a. If yes, does the record indicate that the "reasonable potential" evaluation was performed in accordance with the State's approved procedures?	✓		
5. Does the record describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			✓
6. Does the record present WLA calculation procedures for all pollutants that were found to have "reasonable potential"?			✓
7. Does the record indicate that the "reasonable potential" and WLA calculations accounted for contributions from upstream sources (e.g., do calculations include ambient/background concentrations where data are available)?			✓
8. Does the permit contain numeric effluent limits for all pollutants for which "reasonable potential" was determined?			✓
9. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the record?			✓
10. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, instantaneous) effluent limits established?			✓
11. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass concentration)?			
12. Does the record indicate that an "antidegradation" review was performed in accordance with the State's approved antidegradation policy?	✓		

E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	✓		
1.a. If no, does the record indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate his waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	✓		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices (if applicable)?			✓

F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		✓	
1.a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			✓
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	✓		

G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	✓		
List of Standard Conditions – 40 CFR 122.41 <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Duty to comply Duty to reapply Need to halt or reduce activity not a defense Duty to mitigate Proper O & M Permit Actions Property rights Duty to provide information Inspections and entry Monitoring and reporting </div> <div style="width: 48%;"> Signatory requirement Reporting requirements Planned change Anticipated noncompliance Transfers Monitoring Reports Compliance schedules 24-hour reporting Other non-compliance Bypass Upset </div> </div>			
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	✓		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department and/or made available to the Department, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Mark Treat</u>
Title	<u>Permit Writer</u>
Signature	<u>M. J. Treat</u>
Date	<u>12-5-12</u>

Trent, Mark (DEQ)

From: Trent, Mark (DEQ)
Sent: Friday, October 26, 2012 2:45 PM
To: Cason, Gladys (DGIF)
Subject: T&E Consultation - VPDES Permit Number VA0054381
Attachments: VA0054381_Marion_Fish_T&E_Coordination_Form.pdf; VA0054381_Marion_Fish_Application.pdf

Please find attached a Threatened and Endangered Species Coordination form and a copy of the VPDES application for the reissuance of an existing VPDES permit for the VDGIF – Marion Fish Cultural Station in Smyth County, Virginia.

A copy of the existing effluent limitations is included with the form. Since no operational changes are proposed, no modifications to the limitations are proposed at this time.

Please contact me if you have any questions.

Mark S. Trent
VA Department of Environmental Quality
Southwest Regional Office
Abingdon, VA 24212
(276) 676-4816
mark.trent@deq.virginia.gov



VPDES PERMITS

Threatened and Endangered Species Coordination

To:

- ☒ DGIF, Environmental Review Coordinator
☐ DCR
☐ USFWS, T/E Review Coordinator

From:

Mark Trent, DEQ SWRO
 (mark.trent@deq.virginia.gov)

Date Sent: October 26, 2012

Permit Number: VA0054381

Facility Name: Marion Fish Cultural Station

Contact: Aaron VanArnum, Hatchery Superintendant

Phone: (276) 782-9314

Address: VA Department of Game & Inland Fisheries
 PO Box 11104
 Richmond, VA 23230

Location: Smyth County

USGS Quadrangle: Atkins, VA 7.5'

Latitude/Longitude: 36° 49' 30"/81° 28' 55"

Receiving Stream: Staley Creek

**Receiving Stream Flow Statistics used for
Permit:**

7-Day, 10-Year Low Flow: 2.10 MGD
 1-Day, 10-Year Low Flow: 2.17 MGD
 30-Day, 5-Year Low Flow: 2.33 MGD
 Harmonic Mean Flow: 4.59 MGD

Effluent Characteristics and Max Daily Flow:

The discharge results from the operation of a cold water aquatic animal production facility (trout hatchery) that has a capacity of 170,000 pounds of fish. The permit process consists of: limiting pH, total suspended solids, settleable solids and temperature. The permit also contains monitoring requirements for flow, biochemical oxygen demand and ammonia. Monitoring is in accordance with the attached existing effluent limitations. The discharge flows from the operation are reported as 2.97 MGD.

Species Search Results:

Database report and map are attached.

Site Location

36,49,30.0 -81,28,55.0
in the Search Point

☒ Mustary Search Point is not
in center at map center

Show Position Rings

☒ Yes ☒ No
1 mile and 1/4 mile at the Search
Point

Show Search Area

☒ Yes ☒ No
2 Search distance miles
radius

Search Point is at
map center

Base Map Choices

Topography

Map Overlay Choices

Current List Position Search
BEX'AR, BAEANesta, TEWaters,
Turtl, Habitat, Trout,
Anadromous

Map Overlay Legend

T & E Waters

Federal

State

Predicted Habitat
WAP Tier I & II

Aquatic

Terrestrial

Trout Waters

Class I - IV

Class V - VI

Anadromous Fish Reach

Confirmed

Potential

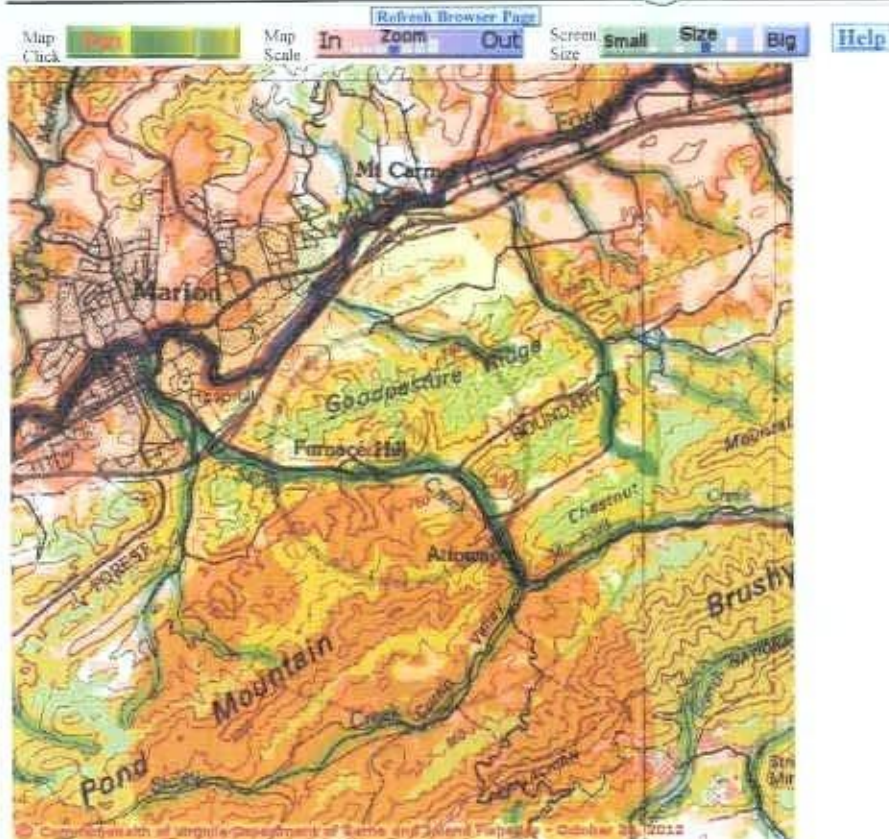
Impediment

Position Rings
1 mile and 1/4
mile at the
Search Point

2 mile radius
Search Area

Bald Eagle
Concentration Areas
and Roosts

Virginia Fish and Wildlife Information Service



Point of Search 36,49,30.0 -81,28,55.0

Map Location 36,49,30.0 -81,28,55.0

Select Coordinate Systems: ☒ Degrees, Minutes, Seconds Latitude - Longitude

☒ Decimal Degrees Latitude - Longitude

☒ Meters UTM NAD83 East North Zone

☒ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft Internet Map](http://microsoft.inetserver-map.com) for details)

Map projection is UTM Zone 17 NAD 1983 with left 452222 and top 4080368. Pixel size is 16 meters. Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 55.5 square miles.

Topographic maps and black and white aerial photography for year 1990- are from the United States Department of the Interior, United States Geological Survey. Color aerial photography acquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

Shaded topographic maps are from TOPO! ©2006 National Geographic

<http://www.nationalgeographic.com/topo>

All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2012-10-26 14:30:15 (qa/qc June 12, 2012 14:14 - tn=433016.0 dist=32181)

| [DGIF](#) | [Credits](#) | [Disclaimer](#) | Contact shirl.dressler@dgif.virginia.gov | Please view our [privacy policy](#) |
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VaFWIS Search Report Compiled on 10/26/2012, 2:31:36 PM[Help](#)

Known or likely to occur within a 2 mile radius around point 36.825
 81.4819444444445
 in 173 Smyth County, VA

[View Map of
 Site Location](#)

465 Known or Likely Species ordered by Status Concern for Conservation
 (displaying first 45) (45 species with Status* or Tier I** or Tier II**)

<u>BOVA Code</u>	<u>Status*</u>	<u>Tier**</u>	<u>Common Name</u>	<u>Scientific Name</u>	<u>Confirmed</u>	<u>Database(s)</u>
050068	FESE	I	<u>Squirrel, Virginia northern flying</u>	Glaucomys sabrinus fuscus		BOVA
060094	FESE	I	<u>Pearlymussel, littlewing</u>	Pegias fabula		BOVA
060052	FESE	I	<u>Pigtoe, shiny</u>	Fusconaia cor		BOVA
060122	FESE	I	<u>Rabbitsfoot, rough</u>	Quadrula cylindrica strigillata	<u>Yes</u>	TEWaters,Habitat
060036	FESE	I	<u>Riffleshell, tan</u>	Epioblasma florentina walkeri	<u>Potential</u>	BOVA,Habitat,HU6
050021	FESE	II	<u>Bat, gray</u>	Myotis grisescens		HU6
060146	FE	II	<u>Bean, Rayed</u>	Villosa fabalis		BOVA
010330	FTST	I	<u>Chub, spotfin</u>	Erimonax monachus		BOVA
010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Potential</u>	BOVA,Habitat,HU6
040267	SE	I	<u>Wren, Bewick's</u>	Thryomanes bewickii		BOVA
060080	SE	II	<u>Heelsplitter, Tennessee</u>	Lasmigona holstonia	<u>Potential</u>	BOVA,Habitat,HU6
060139	FSSE	II	<u>Lilliput, purple</u>	Toxolasma lividus		BOVA
060007	SE	II	<u>Mussel, slippershell</u>	Alasmidonta viridis		BOVA

070118	FSSE	II	<u>Crayfish, Big Sandy</u>	Cambarus veteranus		BOVA
040096	ST	I	<u>Falcon, peregrine</u>	Falco peregrinus		BOVA
040293	ST	I	<u>Shrike, loggerhead</u>	Lanius ludovicianus	<u>Potential</u>	BOVA,BBA,HU6
040385	ST	I	<u>Sparrow, Bachman's</u>	Aimophila aestivalis		BOVA
010352	ST	II	<u>Darter, greenfin</u>	Etheostoma chlorobranchium		BOVA
010342	ST	II	<u>Darter, sickle</u>	Percina williamsi		BOVA
040093	FSST	II	<u>Eagle, bald</u>	Haliaeetus leucocephalus		BOVA,HU6
060083	FPST	II	<u>Pearlymussel, slabside</u>	Lexingtonia dolabelloides	<u>Potential</u>	BOVA,Habitat,HU6
060069	FSST	III	<u>Riversnail, spiny</u>	Io fluvialis		BOVA
060086	ST	III	<u>Sandshell, black</u>	Ligumia recta	<u>Yes</u>	TEWaters,Habitat
040292	ST		<u>Shrike, migrant loggerhead</u>	Lanius ludovicianus migrans		BOVA
060121	FP	II	<u>Kidneyshell, fluted</u>	Ptychobranchus subtentum	<u>Potential</u>	BOVA,Habitat,HU6
100248	FS	I	<u>Fritillary, regal</u>	Speyeria idalia idalia		BOVA,HU6
010341	FS	II	<u>Logperch, blotchside</u>	Percina burtoni		BOVA
060050	FS	II	<u>Pigtoe, Tennessee</u>	Fusconaia barnesiana	<u>Potential</u>	BOVA,Habitat,HU6
070010	FS	III	<u>Amphipod, James Cave</u>	Stygobromus abditus		BOVA
100001	FS	IV	<u>fritillary, Diana</u>	Speyeria diana		BOVA
020020	CC	II	<u>Hellbender, eastern</u>	Cryptobranchus alleganiensis alleganiensis		BOVA,HU6
030012	CC	IV	<u>Rattlesnake, timber</u>	Crotalus horridus		BOVA,HU6
040372		I	<u>Crossbill, red</u>	Loxia curvirostra		BOVA

040225		I	<u>Sapsucker,</u> <u>yellow-</u> <u>bellied</u>	Sphyrapicus varius	<u>Potential</u>	BOVA,Habitat,HU6
040319		I	<u>Warbler,</u> <u>black-</u> <u>throated</u> <u>green</u>	Dendroica virens		BOVA
040306		I	<u>Warbler,</u> <u>golden-</u> <u>winged</u>	Vermivora chrysoptera		BOVA,HU6
010075		II	<u>Shiner,</u> <u>popeye</u>	Notropis ariommus		BOVA
020011		II	<u>Frog,</u> <u>mountain</u> <u>chorus</u>	Pseudacris brachyphona	<u>Potential</u>	BOVA,Habitat,HU6
020030		II	<u>Salamander,</u> <u>green</u>	Aneides aeneus		BOVA
020078		II	<u>Salamander,</u> <u>Weller's</u>	Plethodon welleri		BOVA
040052		II	<u>Duck,</u> <u>American</u> <u>black</u>	Anas rubripes		BOVA,HU6
040213		II	<u>Owl, northern</u> <u>saw-whet</u>	Aegolius acadicus		BOVA,HU6
040320		II	<u>Warbler,</u> <u>cerulean</u>	Dendroica cerulea		BOVA,HU6
040304		II	<u>Warbler,</u> <u>Swainson's</u>	Limnodynastes swainsonii		BOVA,HU6
040266		II	<u>Wren, winter</u>	Troglodytes troglodytes		BOVA,HU6

To view **All 465 species** [View 465](#)

* FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened;
FP=Federal Proposed; FC=Federal Candidate; FS=Federal Species of Concern; CC=Collection Concern

** I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II -
Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need;
IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need

[View Map of All Query Results from All
Observation Tables](#)

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Impediments to Fish Passage

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters (1 Reach)

[View Map of All
Threatened and Endangered Waters](#)

Stream Name	T&E Waters Species						View Map
	Highest TE *	BOVA Code, Status *, Tier **, Common & Scientific Name					
<u>Middle Fork Holston River (06010102)</u>	FESE	060086	ST	III	<u>Sandshell, black</u>	Ligumia recta	<u>Yes</u>
		060122	FESE	I	<u>Rabbitsfoot, rough</u>	Quadrula cylindrica strigillata	

Managed Trout Streams (3 records) (Click on Stream Name to view complete reach history)

[View Map of All
Trout Stream Surveys](#)

Reach ID	Stream Name	Class	Brook Trout	Brown Trout	Rainbow Trout	View Map
03DRU-01	<u>Dry Run</u>	Stockable				<u>Yes</u>
03MFH-01	<u>Middle Fork Holston River</u>	Stockable			Y	<u>Yes</u>
03STA-01	<u>Staley Creek</u>	Stockable	Y	Y	Y	<u>Yes</u>

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Species Observations (24 records - displaying first 20)
[View Map of All Query Results](#)
[Species Observations](#)

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
337862	SppObs	Jan 1 1984	REJ-B-JENKINS	18		III	Yes
335198	SppObs	Jan 1 1976	REJ-JENKINS	15		III	Yes
334109	SppObs	Jan 1 1972	REJ-JENKINS	16		III	Yes
56145	SppObs	May 15 1998	KAREN ADKISSON, BLACKSBURG, VA	2		IV	Yes
50023	SppObs	Aug 1 1994	Dr. Richard L. Mayden, Univ. of Alabama, Dept. of Biological Sciences	5		IV	Yes
6775	SppObs	Apr 29 1994	John A. Musick	9		IV	Yes
8092	SppObs	Aug 24 1988	RICHARD NEVES	1		IV	Yes
337820	SppObs	Jan 1 1984	REJ-B-JENKINS	8		IV	Yes
337776	SppObs	Jan 1 1984	NMB-B-BURKHEAD	12		IV	Yes
337613	SppObs	Jan 1 1983	REJ-B-JENKINS	14		IV	Yes
15828	SppObs	Oct 6 1973	REED	12		IV	Yes
334441	SppObs	Jan 1 1973	JEJ-JOHNSON	14		IV	Yes
334451	SppObs	Jan 1 1973	JRR-REED	11		IV	Yes

332877	SppObs	Jan 1 1963	WSW-WOOLCOTT	12		IV	Yes
332840	SppObs	Jan 1 1962	WJR (MISC 2)	9		IV	Yes
332271	SppObs	Jan 1 1956	VPI-B-VA. POLY. INST.	6		IV	Yes
331751	SppObs	Jan 1 1952	RHG-GIBBS	10		IV	Yes
331041	SppObs	Jan 1 1888	DSJ-JORDAN	17		IV	Yes
331023	SppObs	Jan 1 1885	MCM- MACDONALD	13		IV	Yes
613942	SppObs	Nov 14 2011	James; Bradley Nick; Little	3			Yes

Displayed 20 Species Observations

Selected 24 Observations [View all 24 Species Observations](#)

Habitat Predicted for Aquatic WAP Tier I & II Species

(6 Reaches)

[View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species](#)

Stream Name	Highest TE *	Tier Species					View Map
		BOVA Code, Status *, Tier **, Common & Scientific Name					
Staley Creek (06010102)	FCSE	010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Yes</u>
		060080	SE	II	<u>Heelsplitter, Tennessee</u>	Lasmigona holstonia	
		060083	FPST	II	<u>Pearlymussel, slabside</u>	Lexingtonia dolabelloides	
Middle Fork Holston River (06010102)	FESE	060036	FESE	I	<u>Riffleshell, tan</u>	Epioblasma florentina walkeri	<u>Yes</u>
		060050	FS	II	<u>Pigtoe, Tennessee</u>	Fusconaia barnesiana	
		060080	SE	II	<u>Heelsplitter, Tennessee</u>	Lasmigona holstonia	

		060083	FPST	II	<u>Pearlymussel, slabside</u>	Lexingtonia dolabelloides	
		060086	ST	III	<u>Sandshell, black</u>	Ligumia recta	
		060121	FP	II	<u>Kidneyshell, fluted</u>	Ptychobranchus subtentum	
		060122	FESE	I	<u>Rabbitsfoot, rough</u>	Quadrula cylindrica strigillata	
(06010102)	SE	010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Yes</u>
Dry Run (06010102)	SE	010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Yes</u>
Marchant Creek (06010102)	SE	010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Yes</u>
Staley Creek (06010102)	SE	010430	SE	I	<u>Dace, Tennessee</u>	Chrosomus tennesseensis	<u>Yes</u>

Habitat Predicted for Terrestrial WAP Tier I & II Species

(2 Species)

[View Map of Combined Terrestrial Habitat Predicted for 2 WAP Tier I & II Species Listed Below](#)

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
040225		I	<u>Sapsucker, yellow-bellied</u>	Sphyrapicus varius	<u>Yes</u>
020011		II	<u>Frog, mountain chorus</u>	Pseudacris brachyphona	<u>Yes</u>

Virginia Breeding Bird Atlas Blocks (1 records)

[View Map of All Query Results](#)
[Virginia Breeding Bird Atlas Blocks](#)

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE *	Highest Tier **	

18032	Marion, NE	83	ST	I	Yes
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Public Holdings: (1 names)

Name	Agency	Level
Jefferson Natioanl Forest	U.S. Forest Service	Federal

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
173	Smyth	454	FESE	I

USGS 7.5' Quadrangles:

Marion
Atkins

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
TH10	Middle Fork Holston River-Staley Creek	83	FESE	I

Compiled on 10/26/2012, 2:31:36 PM I433016.0 report=all searchType=R dist= 3218 poi= 36.825 81.4819444444445

PixelSize=64; Anadromous=0.04803; BBA=0.112118; BECAR=0.031132; Bats=0.025803; Buffer=0.178261; County=0.137964; HU6=0.87188; Impediments=0.036574; Int=0.213698; PublicLands=0.055888; Quad=0.106898; SppObs=1.018279; TEWaters=0.09077; TierReaches=0.198799; TierTerrestrial=0.316675; Total=3.396172; Trout=0.051553; huva=0.077707